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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,777	01/09/2007	Shunichi Osada	0599-0215PUS1	3791

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EXAMINER

NELSON, MICHAEL B

ART UNIT	PAPER NUMBER
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1794

NOTIFICATION DATE	DELIVERY MODE
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02/02/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/575,777	Applicant(s) OSADA ET AL.	
	Examiner MICHAEL B. NELSON	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Response to Amendment

1. Applicant's amendments to the claims filed on 12/12/08 have been entered. Claims 1-8, 10-18 are currently under examination on the merits. Claims 9 and 19-20 are cancelled. The previous objections and 112 2nd paragraph rejections have been withdrawn as a result of applicant's amendments.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5, 7-12 and 16-20, are rejected under 35 U.S.C. 102(b) as being anticipated by Weber et al. (U.S. 6,531,230), with Arends et al. (U.S. 5,360,659) as evidentiary support.

Regarding claim 1, Weber et al. discloses a laminated film with alternating layers of PMMA, 46.7 nm thick, and PEN, 100nm thick, in which a linear thickness gradient is employed which results in the thickness of the layers changing from one surface to the other (C11, L30-67). Weber et al. does not explicitly disclose a laminate film wherein the maximum light ray reflectivity is 25% or less in a wavelength range of 400 to 2500 nm, however in light of the substantially identical refractive indexes and thicknesses of the layers in the stack of Weber et al. with the instant layers, it will inherently possess the instant claimed properties (See Fig. 23-25, G, L and P, for the range of 400nm-1200nm, the laminated film has a reflectance of less than 25%.)

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Regarding claims 2-4, Weber et al. discloses all of the limitations as set forth above. Additionally the reference discloses a laminated film in which the stacked structure has a relative optical thickness in which, from left to right, the layers of A decrease, and the layers of B increases towards the center and then decrease back to the other surface (C26, L60-C27, L40).

Regarding claims 5 and 10-12, Weber et al. discloses all of the limitations as set forth above. Additionally the reference discloses a laminated film comprising two thermoplastic resins which are disclosed as having refractive indexes of 1.75 and 1.50, (C17, L15-25).

Regarding claims 7, and 16-18, Weber et al. Discloses all of the limitations as set forth above. Additionally the reference discloses a laminated film comprising a thickness structure in which the stacked structure posses the instant claimed thickness ratios. See C26, L60-C27, L40, Arends et al. is incorporated by reference into Weber et al. From Arends et al., C9, L40-C10, L15, polycarbonate and polymethyl methacrylate are disclosed as the resins for use in the stacked structure. Using either polycarbonate or polymethyl methacrylate resin as A or B to calculate the actual thickness from the optical thickness, the ratio of thicknesses (thin/thick) between the first B layer and the first A layers falls within the second instant claimed range (i.e. 0.01 to 0.5) and the thickness ratio (thin/thick) of the first B layer to the second A layer falls within the first instant claimed range (i.e. 0.8-1.0).)

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Regarding claim 8, Weber et al. discloses all of the limitations as set forth above.

Additionally the reference discloses a laminated film wherein the number of the laminated layers is made with 80 layers (C17, L15-25).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 6 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al. (U.S. 6,531,230), with Arends et al. (U.S. 5,360,659) as evidentiary support, as applied to claims 1-4 above.

Regarding claims 6, and 13-15, Weber et al. discloses all of the limitations as set forth above. Additionally the reference discloses a laminated film wherein the range of optical thicknesses substantially overlaps the claimed range, with the lower endpoint, 0.01 micrometers, lying within the claimed range (C2, L55-C3, L5). Also see C26, L60-C27, L40, in the disclosed embodiment, which comes from an incorporation by reference of Arends et al., the stacked structure has 4 relatively thin layers and 2 relatively thick layers, which would result in more than half of the layers being relatively thin layers. It would have been obvious to one having ordinary skill in the art to use the disclosed very thin layers (i.e. 0.01 micrometers optical thickness) as the relatively thin layers in the stacked structure incorporated by reference from Arends et al. because it was known at the time that the very thin layers enable bands of iridescence to be so close that they are indiscernible to the human eye (Weber et al., C2, L55-C3, L5).)

Response to Arguments

8. Applicant's arguments filed on 12/12/08 are considered moot in light of the new grounds of rejection which were necessitated by applicant's amendments. Arguments which are still deemed to be relevant are addressed below.

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9. Regarding applicant's arguments that the G, L and P parts of Fig. 23-25 are parallel polarized light, nowhere in the instant claims does it recite that the light being reflected cannot be polarized nor is it recited that the light cannot be parallel to the polarizing axis of the film. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e. the polarization characteristics of the reflected light) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Furthermore there is no evidence provided by the applicant to indicate that the G, L and P parts of the Fig. 23-25 are in fact parallel polarized light, nor is there any evidence to support the applicants claim that natural, unpolarized light "would likely result in a maximum reflectance of at least 50%."

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL B. NELSON whose telephone number is (571) 270-3877. The examiner can normally be reached on Monday through Thursday 6AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MN/

01/23/09

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1794